REMARKS

A Supplemental Application Data Sheet has also been submitted correcting

Thomas Moll's citizenship. No new matter has been added by the present amendment.

If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: 06 March 2007

Karen L. Elbing, 🗹 Reg. No. 35 238

Clark & Elbing LLP 101 Federal Street Boston, MA 02110

Telephone: 617-428-0200 Facsimile: 617-428-7045

SEQUENCE LISTING

<110>	Herrmann, And Dreher, Ingeb Moll, Thomas Zahn, Stefani	org								
<120>	Expression Sy Use	stem for Pre	paring IL-1	5/Fc Fusion	Proteins and	l Its				
<130>	50125/115001									
<140> <141>	US 10/592,010 2006-09-07									
<150> <151>	PCT/EP2005/003888 2005-04-13									
<150> <151>	EP 04008881.7 2004-04-14									
<160>	5									
<170>	PatentIn version 3.3									
<210><211><211><212><213>	1 6458 DNA Artificial sequence									
<220> <223> Plasmid.pcDNA3.1hCD5.6Ala7										
<400> gacggat	1 .cgg gagatetee	c gatcccctat	ggtgcactct	cagtacaatc	tgctctgatg	60				
ccgcata	gtt aagccagta	t ctgctccctg	cttgtgtgtt	ggaggtcgct	gagtagtgcg	120				
cgagcaa	aat ttaagctac	a acaaggcaag	gcttgaccga	caattgcatg	aagaatctgc	180				
ttagggt	tag gcgttttgc	g ctgcttcgcg	atgtacgggc	cagatatacg	cgttgacatt	240				
gattatt	gac tagttatta.	a tagtaatcaa	ttacggggtc	attagttcat	agcccatata	300				
tggagtt	ccg cgttacata	a cttacggtaa	atggcccgcc	tggctgaccg	cccaacgacc	360				
cccgcc	att gacgtcaat	a atgacgtatg	ttcccatagt	aacgccaata	gggactttcc	420				
attgac	tca atgggtgga	g tatttacggt	aaactgccca	cttggcagta	catcaagtgt	480				
atcatat	gcc aagtacgcc	c cctattgacg	tcaatgacgg	taaatggccc	gcctggcatt	540				
atgccca	gta catgacctt	a tgggactttc	ctacttggca	gtacatctac	gtattagtca	600				
tcgctat	tac catggtgat	g cggttttggc	agtacatcaa	tgggcgtgga	tagcggtttg	660				
actcac	ggg atttccaag	t ctccacccca	ttgacgtcaa	tgggagtttg	ttttggcacc	720				

aaaatcaacg ggactttcca aaatgtcgta acaactccgc cccattgacg caaatgggcg 780 gtaggcgtgt acggtgggag gtctatataa gcagagctct ctggctaact agagaaccca 840 ctgcttactg gcttatcgaa attaatacga ctcactatag ggagacccaa gctggctagc 900 960 caccatgeee atggggtete tgeaaceget ggecacettg tacetgetgg ggatgetggt 1020 cgcttcctgc ctcggaaact gggtgaatgt aataagtgat ttgaaaaaaa ttgaagatct tattcaatct atgcatattg atgctacttt atatacggaa agtgatgttc accccagttg 1080 1140 caaagtaaca gcaatgaagt gctttctctt ggagttacaa gttatttcac ttgagtccgg agatgcaagt attcatgata cagtagaaaa tctgatcatc ctagcaaaca acagtttgtc 1200 ttctaatggg aatgtaacag aatctggatg caaagaatgt gaggaactgg aggaaaaaa 1260 tattaaagaa tttttggaca gttttgtaca tattgtcgac atgttcatca acacttcgga 1320 1380 teccaaatet getgacaaaa eteacaeatg eecaeegtge eeageaeetg aacteetggg 1440 gggaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga tctcccggac 1500 ccctgaggtc acgtgcgtgg tggtggacgt gagccacgaa gaccctgagg tcaagttcaa 1560 ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg aggagcagta 1620 caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact ggctgaatgg 1680 caaggagtac aagtgcaagg totocaacaa agcootocca goococatog agaaaaccat 1740 ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc catcccggga 1800 tgagetgaee aagaaceagg teageetgae etgeetggte aaaggettet ateeeagega categeegtg gagtgggaga geaatgggea geeggagaac aactacaaga eeaegeetee 1860 cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg acaagagcag 1920 1980 gtggcagcag gggaacgtet teteatgete egtgatgeat gaggetetge acaaceacta 2040 cacgcagaag agcctctccc tgtctccggg taaatgatct agagggcccg tttaaacccg ctgatcagec tegactgtgc cttetagttg ceagecatet gttgtttgee ceteecegt 2100 gccttccttg accctggaag gtgccactcc cactgtcctt tcctaataaa atgaggaaat 2160 2220 2280 caagggggag gattgggaag acaatagcag gcatgctggg gatgcggtgg gctctatggc ttctgaggcg gaaagaacca gctggggctc tagggggtat ccccacgcgc cctgtagcgg 2340 2400 cgcattaagc gcggcggtg tggtggttac gcgcagcgtg accgctacac ttgccagcgc

cetagegeee geteettteg etttetteee tteetttete geeaegtteg eeggetttee 2460 2520 ccgtcaagct ctaaatcggg ggctcccttt agggttccga tttagtgctt tacggcacct 2580 cgaccccaaa aaacttgatt agggtgatgg ttcacgtagt gggccatcgc cctgatagac 2640 ggtttttcgc cctttgacgt tggagtccac gttctttaat agtggactct tgttccaaac 2700 tggaacaaca ctcaacccta tctcggtcta ttcttttgat ttataaggga ttttgccgat 2760 ttcggcctat tggttaaaaa atgagctgat ttaacaaaaa tttaacgcga attaattctg tggaatgtgt gtcagttagg gtgtggaaag tccccaggct ccccagcagg cagaagtatg 2820 2880 caaagcatgc atctcaatta gtcagcaacc aggtgtggaa agtccccagg ctccccagca 2940 ggcagaagta tgcaaagcat gcatctcaat tagtcagcaa ccatagtccc gcccctaact ccgcccatcc cgcccctaac tccgcccagt tccgcccatt ctccgcccca tggctgacta 3000 attitttta titatgcaga ggccgaggcc gcctctgcct ctgagctatt ccagaagtag 3060 3120 tgaggagget tttttggagg cetaggettt tgcaaaaage teeegggage ttgtatatee attttcggat ctgatcaaga gacaggatga ggatcgtttc gcatgattga acaagatgga 3180 3240 ttgcacgcag gttctccggc cgcttgggtg gagaggctat tcggctatga ctgggcacaa 3300 cagacaatcg gctgctctga tgccgccgtg ttccggctgt cagcgcaggg gcgcccggtt 3360 ctttttgtca agaccgacct gtccggtgcc ctgaatgaac tgcaggacga ggcagcgcgg 3420 ctatcqtqqc tggccacgac gggcgttcct tgcgcagctg tgctcgacgt tgtcactgaa 3480 gcgggaaggg actggctgct attgggcgaa gtgccggggc aggatctcct gtcatctcac 3540 cttgctcctg ccgagaaagt atccatcatg gctgatgcaa tgcggcggct gcatacgctt 3600 gateeggeta cetgeecatt egaceaceaa gegaaacate geategageg ageaegtaet 3660 cggatggaag ccggtcttgt cgatcaggat gatctggacg aagagcatca ggggctcgcg 3720 ccagccgaac tgttcgccag gctcaaggcg cgcatgcccg acggcgagga tctcgtcgtg 3780 acccatggcg atgcctgctt gccgaatatc atggtggaaa atggccgctt ttctggattc 3840 atequetyte geeggetggg tgtggeggae egetateagg acatagegtt ggetaeeegt 3900 gatattgctg aagagcttgg cggcgaatgg gctgaccgct tcctcgtgct ttacggtatc 3960 qccqctcccg attcgcagcg catcgccttc tatcgccttc ttgacgagtt cttctgagcg 4020 ggactctggg gttcgaaatg accgaccaag cgacgcccaa cctgccatca cgagatttcg 4080 attocaccgc cgccttctat gaaaggttgg gcttcggaat cgttttccgg gacgccggct 4140 ggatgatect ccagegeggg gateteatge tggagttett egeceaecee aacttgttta

ttgcagctta taatggttac aaataaagca atagcatcac aaatttcaca aataaagcat 4200 ttttttcact gcattctagt tgtggtttgt ccaaactcat caatgtatct tatcatgtct 4260 gtataccgtc gacctctagc tagagettgg egtaatcatg gteatagetg ttteetgtgt 4320 4380 gaaattgtta tccgctcaca attccacaca acatacgagc cggaagcata aagtgtaaag cctggggtgc ctaatgagtg agctaactca cattaattgc gttgcgctca ctgcccgctt 4440 4500 tccagtcggg aaacctgtcg tgccagctgc attaatgaat cggccaacgc gcggggagag 4560 geggtttgeg tattgggege tetteegett cetegeteae tgaetegetg egeteggteg ttcggctgcg gcgagcggta tcagctcact caaaggcggt aatacggtta tccacagaat 4620 4680 caggggataa cgcaggaaag aacatgtgag caaaaggcca gcaaaaggcc aggaaccgta 4740 aaaaggccgc gttgctggcg tttttccata ggctccgccc ccctgacgag catcacaaaa 4800 atcgacgctc aagtcagagg tggcgaaacc cgacaggact ataaagatac caggcgtttc 4860 cccctggaag ctccctcgtg cgctctcctg ttccgaccct gccgcttacc ggatacctgt 4920 ccgcctttct cccttcggga agcgtggcgc tttctcatag ctcacgctgt aggtatctca 4980 gttcggtgta ggtcgttcgc tccaagctgg gctgtgtgca cgaacccccc gttcagcccg 5040 accgctgcgc cttatccggt aactatcgtc ttgagtccaa cccggtaaga cacgacttat 5100 cgccactggc agcagccact ggtaacagga ttagcagagc gaggtatgta ggcggtgcta 5160 cagagttett gaagtggtgg cetaactaeg getacactag aagaacagta tttggtatet gcgctctgct gaagccagtt accttcggaa aaagagttgg tagctcttga tccggcaaac 5220 5280 aaaccaccgc tggtagcggt ggtttttttg tttgcaagca gcagattacg cgcagaaaaa 5340 aaggatetea agaagateet ttgatetttt etaeggggte tgaegeteag tggaaegaaa 5400 actcacgtta agggattttg gtcatgagat tatcaaaaag gatcttcacc tagatccttt taaattaaaa atgaagtttt aaatcaatct aaagtatata tgagtaaact tggtctgaca 5460 gttaccaatg cttaatcagt gaggcaccta tctcagcgat ctgtctattt cgttcatcca 5520 tagttgcctg actccccgtc gtgtagataa ctacgatacg ggagggctta ccatctggcc 5580 ccagtgctgc aatgataccg cgagacccac gctcaccggc tccagattta tcagcaataa 5640 accagecage eggaagggee gagegeagaa gtggteetge aaetttatee geeteeatee 5700 agtctattaa ttgttgccgg gaagctagag taagtagttc gccagttaat agtttgcgca 5760 acgttgttgc cattgctaca ggcatcgtgg tgtcacgctc gtcgtttggt atggcttcat 5820 tcagctccgg ttcccaacga tcaaggcgag ttacatgatc ccccatgttg tgcaaaaaag 5880 cggttagctc cttcggtcct ccgatcgttg tcagaagtaa gttggccgca gtgttatcac 5940 tcatggttat ggcagcactg cataattctc ttactgtcat gccatccgta agatgctttt 6000 ctgtgactgg tgagtactca accaagtcat tctgagaata gtgtatgcgg cgaccgagtt 6060 gctcttgccc ggcgtcaata cgggataata ccgcgccaca tagcagaact ttaaaagtgc 6120 6180 teateattgg aaaaegttet teggggegaa aacteteaag gatettaeeg etgttgagat 6240 ccagttcgat gtaacccact cgtgcaccca actgatcttc agcatctttt actttcacca 6300 gcgtttctgg gtgagcaaaa acaggaaggc aaaatgccgc aaaaaaggga ataagggcga cacggaaatg ttgaatactc atactettee ttttteaata ttattgaage atttateagg 6360 6420 gttattgtct catgagcgga tacatatttg aatgtattta gaaaaataaa caaatagggg 6458 ttccgcgcac atttccccga aaagtgccac ctgacgtc

<210> 2

<211> 7464

<212> DNA

<213> Artificial sequence

<220>

<223> Plasmid pMG10Ala7

<400> 2 60 gacggatcgg gagatctccc gatcccctat ggtgcactct cagtacaatc tgctctgatg ccgcatagtt aagccagtat ctgctccctg cttgtgtgtt ggaggtcgct gagtagtgcg 120 cgagcaaaat ttaagctaca acaaggcaag gcttgaccga caattgcatg aagaatctgc 180 ttagggttag gcgttttgcg ctgcttcgta agctgcaata aacaatcatt attttcattg 240 gatctgtgtg ttggtttttt gtgtgggctt gggggagggg gaggccagaa tgactccaag 300 360 agctacagga aggcaggtca gagaccccac tggacaaaca gtggctggac tctgcaccat aacacacaat caacagggga gtgagctgga tcgagctaga gtccgttaca taacttacgg 420 taaatggccc gcctggctga ccgcccaacg acccccgccc attgacgtca ataatgacgt 480 atgttcccat agtaacgcca atagggactt tccattgacg tcaatgggtg gagtatttac 540 600 ggtaaactgc ccacttggca gtacatcaag tgtatcatat gccaagtacg ccccctattg acgtcaatga cggtaaatgg cccgcctggc attatgccca gtacatgacc ttatgggact 660 ttcctacttg gcagtacatc tacgtattag tcatcgctat taccatggtg atgcggtttt 720

ggcagtacat caatgggcgt ggatagcggt ttgactcacg gggatttcca agtctccacc

780

ccattgacgt caatgggagt ttgttttggc accaaaatca acgggacttt ccaaaatgtc 840 gtaacaactc cgccccattg acgcaaatgg gcggtaggcg tgtacggtgg gaggtctata 900 taagcagagc tegtttagtg aacegteaga tegeetggag aegeeateea egetgttttg 960 acctccatag aagacaccgg gaccgatcca gcctccgcgg ccgggaacgg tgcattggaa 1020 1080 egeggattee cegtgeeaag agtgaegtaa gtaeegeeta tagagtetat aggeeeaeee cettggette ttatgeatge tatactgttt ttggettggg gtetatacae eeeegettee 1140 tcatgttata ggtgatggta tagcttagcc tataggtgtg ggttattgac cattattgac 1200 cactececta ttggtgacga tactttecat tactaateca taacatgget etttgecaca 1260 actictitta tiggiciatat giccaatacac tigticiticag agactigacac gigactictigita 1320 tttttacagg atggggtctc atttattatt tacaaattca catatacaac accaccgtcc 1380 ccagtgcccg cagtttttat taaacataac gtgggatctc cacgcgaatc tcgggtacgt 1440 gttccggaca tgggctcttc tccggtagcg gcggagcttc tacatccgag ccctgctccc 1500 atgeeteeag egacteatgg tegeteggea geteettget eetaacagtg gaggeeagae 1560 ttaggcacag cacgatgccc accaccacca gtgtgccgca caaggccgtg gcggtagggt 1620 atgtgtctga aaatgagctc ggggagcggg cttgcaccgc tgacgcattt ggaagactta 1680 aggcagcggc agaagaagat gcaggcagct gagttgttgt gttctgataa gagtcagagg 1740 taactcccgt tgcggtgctg ttaacggtgg agggcagtgt agtctgagca gtactcgttg 1800 ctgccgcgcg cgccaccaga cataatagct gacagactaa cagactgttc ctttccatgg 1860 gtcttttctg cagtcacccg ggggatcctt cgaacgtagc tctagccacc atgcccatgg 1920 ggtctctgca accgctggcc accttgtacc tgctggggat gctggtcgct tcctgcctcg 1980 gaaactgggt gaatgtaata agtgatttga aaaaaattga agatcttatt caatctatgc 2040 atattgatgc tactttatat acggaaagtg atgttcaccc cagttgcaaa gtaacagcaa 2100 tgaagtgctt tctcttggag ttacaagtta tttcacttga gtccggagat gcaagtattc 2160 2220 atgatacagt agaaaatctg atcatcctag caaacaacag tttgtcttct aatgggaatg taacagaatc tggatgcaaa gaatgtgagg aactggagga aaaaaatatt aaagaatttt 2280 tggacagttt tgtacatatt gtcgacatgt tcatcaacac ttcggatccc aaatctgctg 2340 acaaaactca cacatgccca ccgtgcccag cacctgaact cctgggggga ccgtcagtct 2400 tectettece eccaaaacee aaggacacee teatgatete eeggaceeet gaggteaegt 2460 gcgtggtggt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg tacgtggacg 2520 gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac agcacgtacc 2580 gtgtggtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag gagtacaagt 2640 gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc aaagccaaag 2700 2760 ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggatgag ctgaccaaga 2820 accaggicag cetgacetge etggicaaag gettetatee cagegacate geegiggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg ctggactccg 2880 acggeteett etteetetae ageaagetea eegtggacaa gageaggtgg cageagggga 2940 acgtettete atgeteegtg atgeatgagg etetgeacaa ecaetaeaeg cagaagagee 3000 tetecetyte teegygtaaa tyatetagay gyceeyttta aacceyetya teageetega 3060 ctgtgccttc tagttgccag ccatctgttg tttgcccctc ccccgtgcct tccttgaccc 3120 tggaaggtgc cactcccact gtcctttcct aataaaatga ggaaattgca tcgcattgtc 3180 3240 tgagtaggtg tcattctatt ctggggggtg gggtggggca ggacagcaag ggggaggatt gggaagacaa tagcaggcat gctggggatg cggtgggctc tatggcttct gaggcggaaa 3300 gaaccagctg gggctctagg gggtatcccc acgcgccctg tagcggcgca ttaagcgcgg 3360 cgggtgtggt ggttacgcgc agcgtgaccg ctacacttgc cagcgcccta gcgcccgctc 3420 ctttcgcttt cttcccttcc tttctcgcca cgttcgccgg ctttccccgt caagctctaa 3480 atcgggggct ccctttaggg ttccgattta gtgctttacg gcacctcgac cccaaaaaac 3540 ttgattaggg tgatggttca cgtagtgggc catcgccctg atagacggtt tttcgccctt 3600 tgacgttgga gtccacgttc tttaatagtg gactcttgtt ccaaactgga acaacactca 3660 accetatete ggtetattet tttgatttat aagggatttt geegattteg geetattggt 3720 taaaaaatga gctgatttaa caaaaattta acgcgaatta attctgtgga atgtgtgtca 3780 gttagggtgt ggaaagtccc caggctcccc agcaggcaga agtatgcaaa gcatgcatct 3840 caattagtca gcaaccaggt gtggaaagtc cccaggctcc ccagcaggca gaagtatgca 3900 aagcatgcat ctcaattagt cagcaaccat agtcccgccc ctaactccgc ccatcccgcc 3960 cctaactccg cccagttccg cccattctcc gccccatggc tgactaattt tttttattta 4020 tgcagaggcc gaggccgcct ctgcctctga gctattccag aagtagtgag gaggcttttt 4080 tggaggccta ggcttttgca aaaagctccc gggagcttgt atatccattt tcggatctga 4140 tcaagagaca ggatgaggat cgtttcgcat gattgaacaa gatggattgc acgcaggttc 4200 tccggccgct tgggtggaga ggctattcgg ctatgactgg gcacaacaga caatcggctg 4260 ctctgatgcc gccgtgttcc ggctgtcagc gcaggggcgc ccggttcttt ttgtcaagac 4320 cgacctgtcc ggtgccctga atgaactgca ggacgaggca gcgcggctat cgtggctggc 4380 4440 cacgacgggc gttccttgcg cagctgtgct cgacgttgtc actgaagcgg gaagggactg 4500 gctgctattg ggcgaagtgc cggggcagga tctcctgtca tctcaccttg ctcctgccga 4560 gaaagtatec atcatggetg atgeaatgeg geggetgeat acgettgate eggetacetg 4620 cccattcgac caccaagcga aacatcgcat cgagcgagca cgtactcgga tggaagccgg 4680 tcttgtcgat caggatgatc tggacgaaga gcatcagggg ctcgcgccag ccgaactgtt 4740 cgccaggete aaggegegea tgcccgacgg cgaggatete gtegtgacee atggcgatge ctgcttgccg aatatcatgg tggaaaatgg ccgcttttct ggattcatcg actgtggccg 4800 4860 gctgggtgtg gcggaccgct atcaggacat agcgttggct acccgtgata ttgctgaaga 4920 gcttggcggc gaatgggctg accgcttcct cgtgctttac ggtatcgccg ctcccgattc 4980 gcagcgcatc gccttctatc gccttcttga cgagttcttc tgagcgggac tctggggttc gaaatgaccg accaagcgac gcccaacctg ccatcacgag atttcgattc caccgccgcc 5040 5100 ttctatgaaa ggttgggctt cggaatcgtt ttccgggacg ccggctggat gatcctccag cgcggggatc tcatgctgga gttcttcgcc caccccaact tgtttattgc agcttataat 5160 5220 ggttacaaat aaagcaatag catcacaaat ttcacaaata aagcattttt ttcactgcat tctagttgtg gtttgtccaa actcatcaat gtatcttatc atgtctgtat accgtcgacc 5280 5340 tctagctaga gcttggcgta atcatggtca tagctgtttc ctgtgtgaaa ttgttatccg 5400 ctcacaattc cacacaacat acgageegga agcataaagt gtaaageetg gggtgeetaa 5460 tgagtgagct aactcacatt aattgegttg egeteactge eegettteea gtegggaaac 5520 ctgtcgtgcc agctgcatta atgaatcggc caacgcgcgg ggagaggcgg tttgcgtatt 5580 gggcgctctt ccgcttcctc gctcactgac tcgctgcgct cggtcgttcg gctgcggcga 5640 qcqqtatcaq ctcactcaaa ggcggtaata cggttatcca cagaatcagg ggataacgca ggaaagaaca tgtgagcaaa aggccagcaa aaggccagga accgtaaaaa ggccgcgttg 5700 5760 ctggcgtttt tccataggct ccgccccct gacgagcatc acaaaaatcg acgctcaagt cagaggtggc gaaacccgac aggactataa agataccagg cgtttccccc tggaagctcc 5820 ctcgtgcgct ctcctgttcc gaccctgccg cttaccggat acctgtccgc ctttctccct 5880

tcgggaagcg	tggcgctttc	tcatagctca	cgctgtaggt	atctcagttc	ggtgtaggtc	5940
gttcgctcca	agctgggctg	tgtgcacgaa	cccccgttc	agcccgaccg	ctgcgcctta	6000
tccggtaact	atcgtcttga	gtccaacccg	gtaagacacg	acttatcgcc	actggcagca	6060
gccactggta	acaggattag	cagagcgagg	tatgtaggcg	gtgctacaga	gttcttgaag	6120
tggtggccta	actacggcta	cactagaaga	acagtatttg	gtatctgcgc	tctgctgaag	6180
ccagttacct	tcggaaaaag	agttggtagc	tcttgatccg	gcaaacaaac	caccgctggt	6240
agcggtggtt	tttttgtttg	caagcagcag	attacgcgca	gaaaaaaagg	atctcaagaa	6300
gatcctttga	tcttttctac	ggggtctgac	gctcagtgga	acgaaaactc	acgttaaggg	6360
attttggtca	tgagattatc	aaaaaggatc	ttcacctaga	tccttttaaa	ttaaaaatga	6420
agttttaaat	caatctaaag	tatatatgag	taaacttggt	ctgacagtta	ccaatgctta	6480
atcagtgagg	cacctatctc	agcgatctgt	ctatttcgtt	catccatagt	tgcctgactc	6540
cccgtcgtgt	agataactac	gatacgggag	ggcttaccat	ctggccccag	tgctgcaatg	6600
ataccgcgag	acccacgctc	accggctcca	gatttatcag	caataaacca	gccagccgga	6660
agggccgagc	gcagaagtgg	tcctgcaact	ttatccgcct	ccatccagtc	tattaattgt	6720
tgccgggaag	ctagagtaag	tagttcgcca	gttaatagtt	tgcgcaacgt	tgttgccatt	6780
gctacaggca	tcgtggtgtc	acgctcgtcg	tttggtatgg	cttcattcag	ctccggttcc	6840
caacgatcaa	ggcgagttac	atgatccccc	atgttgtgca	aaaaagcggt	tagctccttc	6900
ggtcctccga	tcgttgtcag	aagtaagttg	gccgcagtgt	tatcactcat	ggttatggca	6960
gcactgcata	attctcttac	tgtcatgcca	tccgtaagat	gcttttctgt	gactggtgag	7020
tactcaacca	agtcattctg	agaatagtgt	atgcggcgac	cgagttgctc	ttgcccggcg	7080
tcaatacggg	ataataccgc	gccacatagc	agaactttaa	aagtgctcat	cattggaaaa	7140
cgttcttcgg	ggcgaaaact	ctcaaggatc	ttaccgctgt	tgagatccag	ttcgatgtaa	7200
cccactcgtg	cacccaactg	atcttcagca	tcttttactt	tcaccagcgt	ttctgggtga	7260
gcaaaaacag	gaaggcaaaa	tgccgcaaaa	aagggaataa	gggcgacacg	gaaatgttga	7320
atactcatac	tetteettt	tcaatattat	tgaagcattt	atcagggtta	ttgtctcatg	7380
agcggataca	tatttgaatg	tatttagaaa	aataaacaaa	taggggttcc	gcgcacattt	7440
ccccgaaaag	tgccacctga	cgtc				7464

<210> 3 <211> 1113

- <212> DNA
- <213> Artificial sequence
- <220>
- <223> DNA for mutated IL-15/Fc with CD5 leader
- <400> 3
- atgcccatgg ggtctctgca accgctggcc accttqtacc tqctqqqqat qctqqtcqct 60 tcctgcctcg gaaactgggt gaatgtaata agtgatttga aaaaaattga agatcttatt 120 caatctatgc atattgatgc tactttatat acggaaagtg atgttcaccc cagttgcaaa 180 gtaacagcaa tgaagtgctt tctcttggag ttacaagtta tttcacttga gtccggagat 240 gcaagtattc atgatacagt agaaaatctg atcatcctag caaacaacag tttgtcttct 300 aatgggaatg taacagaatc tggatgcaaa gaatgtgagg aactggagga aaaaaatatt 360 aaagaatttt tggacagttt tgtacatatt gtcgacatgt tcatcaacac ttcggatccc 420 aaatctgctg acaaaactca cacatgccca ccgtgcccag cacctgaact cctgggggga 480 ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggacccct 540 gaggtcacgt gcgtggtggt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg 600 tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac 660 agcacgtacc gtgtggtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag 720 gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc 780 aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggatgag 840 ctgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc 900 gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg 960 ctggactccg acggctcctt cttcctctac agcaagctca ccgtggacaa gagcaggtgg 1020 cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg 1080 cagaagagcc tctccctgtc tccgggtaaa tga 1113
- <210> 4
- <211> 370
- <212> PRT
- <213> Artificial sequence
- <220>
- <223> Amino acid sequence of human CRB-15 with CD5 leader
- <400> 4

Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu Leu Gly

Met Leu Val Ala Ser Cys Leu Gly Asn Trp Val Asn Val Ile Ser Asp 20 25 30

1

Leu Lys Lys Ile Glu Asp Leu Ile Gln Ser Met His Ile Asp Ala Thr
35 40 45

Leu Tyr Thr Glu Ser Asp Val His Pro Ser Cys Lys Val Thr Ala Met 50 55 60

Lys Cys Phe Leu Leu Glu Leu Gln Val Ile Ser Leu Glu Ser Gly Asp 70 75 80

Ala Ser Ile His Asp Thr Val Glu Asn Leu Ile Ile Leu Ala Asn Asn 85 90 95

Ser Leu Ser Ser Asn Gly Asn Val Thr Glu Ser Gly Cys Lys Glu Cys 100 105 110

Glu Glu Leu Glu Glu Lys Asn Ile Lys Glu Phe Leu Asp Ser Phe Val 115 120 125

His Ile Val Asp Met Phe Ile Asn Thr Ser Asp Pro Lys Ser Ala Asp 130 135 140

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
145 150 155 160

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile 165 170 175

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu 180 185 190

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His 195 200 205

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg 210 215 220

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys 225 230 235 240

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu 245 250 255 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu 280 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp 295 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val 305 310 315 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp 325 Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His 340 345 350 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro 355 365 Gly Lys 370 <210> 5 <211> 371 <212> PRT <213> Artificial sequence <220> Amino acid sequence of murine IL-15/Fc (human mutated IL-15, murine IgG2A) with CD5 leader <400> 5 Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu Leu Gly 5

Met Leu Val Ala Ser Cys Leu Gly Asn Trp Val Asn Val Ile Ser Asp

Leu Lys Lys Ile Glu Asp Leu Ile Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile Lys Glu Phe Leu Asp Ser Phe Val His Ile Val Asp Met Phe Ile Asn Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile

Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val

260 265 270

Tyr Val Leu Pro Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr 275 280 285

Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu 290 295 300

Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro 305 310 315 320

Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val 325 330 335

Glu Lys Lys Asn Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val 340 345 350

His Glu Gly Leu His Asn His His Thr Thr Lys Ser Phe Ser Arg Thr 355 360 365

Pro Gly Lys 370